LIFE SAFETY AND HIGH RISE ORDINANCE

Municipal Code of Chicago

December 15, 2004

New Sections: 13-196-203 to 209

Amended Sections: 15-16-610, 13-200-310, 13-196-038

SUMMARY OF ORDINANCE

- Life Safety Data Sheet
- Voice Communication Systems
- Automatic Sprinkler Systems
- Fire Protection System Retrofitting
- Fire Shields in Smokeproof Towers
- Fire Resistance Rating Requirements
- Life Safety Evaluations
- The Ordinance text may be found at:
  - http://egov.cityofchicago.org/webportal/COCWebPortal/COC_EDITORIAL/NEWHighRiseOrdinance2.pdf

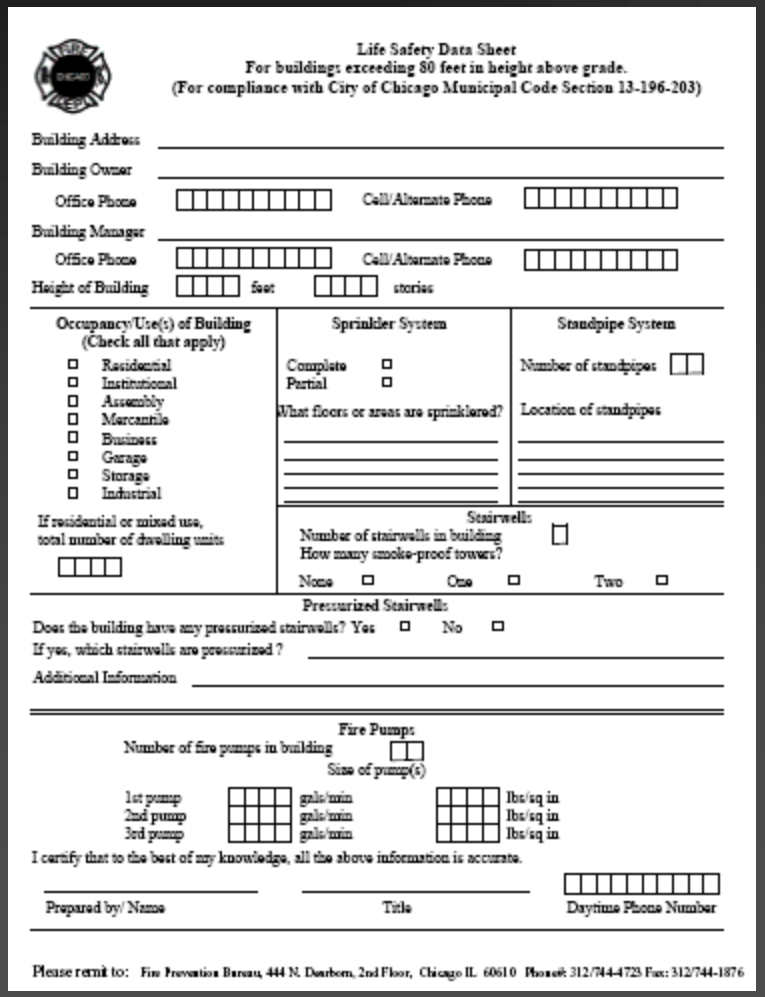
LIFE SAFETY DATA SHEET

Section 13-196-203

- All high rise buildings (those exceeding 80 ft. in height) must submit a Life Safety Data Sheet (LSDS) to the Fire Prevention Bureau by ***April 1, 2005***.
- The LSDS must provide:
  - Contact information for building owners and managers
  - Building address, number of stories and building height
  - Occupancy/use of building and, if residential or mixed use, number of dwelling units
  - Extent of any automatic sprinkler system and where located
  - Number and location of the standpipe system.
  - Number and capacity of fire pumps
  - Number of stairwells, pressurized stairwells and smoke-proof towers

LIFE SAFETY DATA SHEET

Section 13-196-203



Life Safety Data Sheet
For buildings exceeding 80 feet in height above grade.
(For compliance with City of Chicago Municipal Code Section 13-196-203)

Building Address _____

Building Owner _____

Office Phone ☐☐☐☐☐☐☐☐☐☐ Cell/Alternate Phone ☐☐☐☐☐☐☐☐☐☐

Building Manager _____

Office Phone ☐☐☐☐☐☐☐☐☐☐ Cell/Alternate Phone ☐☐☐☐☐☐☐☐☐☐

Height of Building ☐☐☐☐ feet ☐☐☐☐ stories

Occupancy/Use(s) of Building (Check all that apply)

- ☐ Residential
- ☐ Institutional
- ☐ Assembly
- ☐ Mercantile
- ☐ Business
- ☐ Garage
- ☐ Storage
- ☐ Industrial

If residential or mixed use, total number of dwelling units ☐☐☐☐

Sprinkler System

Complete ☐
Partial ☐

What floors or areas are sprinklered? _____

Standpipe System

Number of standpipes ☐☐

Location of standpipes _____

Stairwells

Number of stairwells in building ☐
How many smoke-proof towers?
None ☐ One ☐ Two ☐

Pressurized Stairwells

Does the building have any pressurized stairwells? Yes ☐ No ☐

If yes, which stairwells are pressurized? _____

Additional Information _____

Fire Pumps

Number of fire pumps in building ☐☐

Size of pump(s)

1st pump	☐☐☐	gals/min	☐☐☐	lbs/sq in
2nd pump	☐☐☐	gals/min	☐☐☐	lbs/sq in
3rd pump	☐☐☐	gals/min	☐☐☐	lbs/sq in

I certify that to the best of my knowledge, all the above information is accurate.

Prepared by/ Name _____ Title _____ Daytime Phone Number ☐☐☐☐☐☐☐☐☐☐

Please remit to: Fire Prevention Bureau, 444 N. Dearborn, 2nd Floor, Chicago IL 60610 Phone#: 312/744-4723 Fax: 312/744-1876

The Life Safety Data Sheet can be found on the Fire Department or Department of Buildings web site at:

http://egov.cityofchicago.org/webportal/COCWebPortal/COC_EDITORIAL/LifeSafetyDataSheet_1_1.pdf

VOICE COMMUNICATION SYSTEMS

Section 13-196-204

- Purpose / Requirements:
  - Pre-fire ordinance (1975) residential high rise buildings must have approved one- and two-way voice communication systems
    - Enable Fire Department personnel to communicate with building occupants
    - Enable emergency response teams to communicate with incident command center.
  - Communication systems must be in place by ***January 1, 2012***.

VOICE COMMUNICATION SYSTEM

Section 13-196-204

- Exemptions:
  - One- or two-way systems not required in buildings
    - that are multiple dwelling units **and**
    - have non-transient use **and**
    - are fully protected by automatic sprinkler systems.
  - Two-way systems not required in buildings
    - that are multiple dwellings units **and**
    - have non-transient use **and**
    - where the building does not exceed 15 stories in height and contains 60 or fewer dwelling units

VOICE COMMUNICATION SYSTEM

Section 13-196-204

- Exemptions:
  - One-way systems not required in non-transient residential buildings with an ***approved*** existing occupant notification system meeting the following requirements:
    - Approved by Buildings and Fire Commissioners
    - In continuous use and have testing mechanisms in place
    - Audible throughout all required areas
    - Transmit voice instructions without delay and to all required areas at the same time
    - Available for Fire Dept. use from central command location

FIRE PROTECTION SYSTEM RETROFITTING

Section 13-196-207

- Buildings subject to sections 13-196-204 to 206, shall meet the following requirements where applicable:
  - Water supply meets larger demand of either existing standpipe or sprinkler system
  - Sprinkler systems must meet NFPA 13-2002 requirements, except that one sprinkler must be provided in stairway landings exiting to floors
  - Zoning may remain the same for dry-pipe sprinklers having only minor modifications
  - Low-voltage electrical wiring risers and branch wiring must be installed as outlined in sections 13-196-207(F) to (H)
  - Central station monitoring of fire alarm systems may use digital alarm communicators as outlined in section 13-196-207 (I)

FIRE SHIELDS IN SMOKEPROOF TOWERS

Section 13-196-208

- Fire shields in smokeproof towers protecting openings for balconies or vestibules must meet the following requirements:
  - Have fire windows meeting provisions of section 15-12-160
  - Have opening sashes meeting provisions of sections 13-160-380(c) and 13-196-208(B) through (D)

FIRE RESISTANCE RATING REQUIREMENTS

Section 13-196-209

- Purpose / Requirements:
  - In order to protect the paths of egress, all stairwell doors and frames in high rise buildings must provide a fire rating of at least one hour. (Post-1975 high rises should meet this requirement.)
  - These fire separation requirements must be implemented for all applicable buildings by ***January 1, 2012***.

LIFE SAFETY EVALUATIONS

Section 13-196-206

- Purpose: The Life Safety Evaluation (LSE) assesses the existing life safety features of a high rise building against the following criteria:
  - **Fire Safety:** A measure of the ability to contain a fire within the place of fire origin by passive means such as fire barriers, and to extinguish the fire through active means via either automatic sprinklers and/or manual fire department intervention.
  - **Means of Egress:** A measure of a the ability of building occupants to escape to a safe location within or outside of the building, in case of a fire.
  - **General Safety:** A measure of the overall fire safety level of the building as a while.

LIFE SAFETY EVALUATIONS

Section 13-196-206

- Requirements:
  - All high rise buildings not required by Code to have automatic sprinkler systems must perform LSE in accordance with Rules & Regulations
  - LSE must be performed by Illinois Licensed Architect or Professional Engineer. Report must be signed, sealed and submitted for review to Buildings and Fire Departments by ***January 1, 2006***.
  - LSE's that do not meet minimum scoring for safety measures
    - life safety compliance plan must be included in the report
    - outlines specific repairs/modifications to bring building into compliance
    - full implementation of improvements by ***January 1, 2012***.

LIFE SAFETY EVALUATIONS

Section 13-196-206

- Evaluation Criteria:
  - Eighteen parameters assessing aspects of Fire Safety, Means of Egress and General Building Safety
  - Each parameter is scored using a predetermined weighting for degree of compliance

LIFE SAFETY EVALUATIONS

Section 13-196-206

- What the Life Safety Evaluations look at:
  - Height of Building
  - Construction type
    - Is the building steel, timber, concrete or a combination of materials?
  - Compartment areas
    - Are the walls and ceilings of within an area solid and without penetrations or openings?
    - How large is the area of a single compartment?
  - Separations
    - Do the walls between dwelling units meet required fire resistance?
    - Are corridors adequately protected from dwelling units?

LIFE SAFETY EVALUATIONS

Section 13-196-206

- What the Life Safety Evaluations look at:
  - Corridor partitions and walls
    - Are corridor walls made of fire resistive materials?
    - Are doors to corridor labeled and fire resistive?
  - Vertical openings
    - Is there adequate protection between floors at elevators, escalators and shafts?
  - HVAC Systems
    - How many floors are served by a single HVAC System?

LIFE SAFETY EVALUATIONS

Section 13-196-206

- What the Life Safety Evaluations look at:
  - Smoke detection
    - Are there smoke detectors?
    - Where are they located?
    - Are they connected to an audible alarm system?
  - Communications
    - Does the alarm system provide information to and receive information from building occupants and Fire Department?

LIFE SAFETY EVALUATIONS

Section 13-196-206

- What the Life Safety Evaluations look at:
  - Smoke control
    - Can the movement of smoke be controlled by natural or mechanical means?
    - Are there operable windows that can vent smoke?
  - Means of Egress Capacity and Number
    - How many stairways are there in the building?
  - Dead End Corridors
    - Are there dead end corridors that increase the distance of travel to exits?

LIFE SAFETY EVALUATIONS

Section 13-196-206

- What the Life Safety Evaluations look at:
  - Maximum Exit Access Travel Distance
    - How far is the further point on a floor to an exit?
  - Elevator Controls
    - Are the elevators equipped with automatic recall to the ground floor?
  - Emergency lighting
    - Are hallways and stairwells equipped with emergency lighting that stays lit during a power failure?

LIFE SAFETY EVALUATIONS

Section 13-196-206

- What the Life Safety Evaluations look at:
  - Mixed occupancies
    - What uses other than dwellings are there in the building?
    - Are those uses potentially more hazardous than residential dwellings?
    - Are there adequate barriers to control fire?
  - Automatic sprinkler
    - Are there sprinklers in any part of the building?
  - Auxiliary uses
    - Do other areas of the building that are not residential units represent more than 5% of the total occupied area?

LIFE SAFETY EVALUATIONS

Section 13-196-206

- Additional Requirements:
  - Review of building plans and any changes to the building made subsequent to construction, with comparison to the actual field conditions
  - Testing of building systems as they relate to the LSE, such as elevator recall; fire alarm and detection; communication; door unlocking; sprinkler; emergency lighting; and all other pertinent systems
  - Building must have a functional standpipe system

LIFE SAFETY EVALUATIONS

Section 13-196-206

- Reporting Criteria:
  - LSE report preparation and submission in accordance with Rules and Regulations
  - LSE must describe the findings and recommendations to be implemented.
  - Copy of LSE retained by the Building Manager as part of permanent records.
  - Professional of Record shall immediately notify the Building's Management and Commissioners of Buildings and Fire of imminently dangerous and hazardous conditions
  - Professional of Record to attend meetings directed by Commissioners of Buildings and Fire relative to final report.

LIFE SAFETY EVALUATIONS

Section 13-196-206

- Report Format:
  - **Executive Summary**
  - **Findings of Inspections and Ratings**- Findings for 18 evaluation criteria, including sketches, dimensions, photographs
  - **Scoring Summary Sheet**- Summary of scoring based on inspection findings.
  - **Recommended Actions / Compliance Plan**- If building does not meet minimum scoring in areas of Fire Safety, Means of Egress or General Safety, LSE to provide Compliance plan to achieve minimum score.
  - **Statement of Work Performed and Certification**- Certified as outlined in the Rules and Regulations, including professional seal and signature.

RESOURCES

- **Life Safety & High Rise Ordinance web site**:
  Go to www.cityofchicago.org/buildings
  and look for this link ➡

RESOURCES

At the Department of Buildings web site you will find:

- LSE and sprinkler system FAQs
- Rules and Regulations for LSEs
- Guidelines for selection of a design professional and Draft Request for Qualifications (RFQ)
- Life Safety Data Sheet
- Sprinkler contractors, materials and specifications (in progress)
- Contact information at highriselifesafety@cityofchicago.org

RESOURCES

If you have questions or need technical assistance, contact Department of Buildings through email at highriselifesafety@cityofchicago.org